

Clean Copy of Amended Claim 1

1. (Amended) A method for continuous casting bars, billet, and slabs from a melt in dimensional ranges of approximately 20 to 150 mm thickness and approximately 600 to 3500 mm width by means of an oscillating, water-cooled casting mold in cooperation with a submerged-entry nozzle, employing casting powder for formation of casting slag, the method comprising the steps of:

measuring local temperatures and local heat flux densities of a casting mold in a meniscus area of the melt critical for the surface quality of a slab;

maintaining temperatures of the casting mold plates in the meniscus area within a predetermined temperature range (ΔT) by adjusting the operating parameters selected from the group consisting of the quantity of the cooling water, the throughput speed of the cooling water, the casting speed, and casting powder to be used, wherein for measuring the temperatures, thermoelements are arranged in the casting mold plates within a height range above and below the bath level and at different depths of the wall of the casting mold plates, wherein based on a temperature difference of at least two of the thermoelements positioned substantially at a same height and spacing from one

another, the corresponding local heat flux density is calculated;
and

a controlling, when knowing the optimal heat flux density
or the maximum surface temperature, the best suited casting mold
load for an optimal slab surface formation by adjusting at least
one of the operating parameters selected from the group
consisting of cooling water quantity and casting speed and
casting powder.